

**REMARKS**

The Office Action dated October 9, 2007, has been carefully considered. The present Amendment is intended to be a complete response and to place the case in condition for allowance.

In the Office Action, the Examiner rejected claims 10 and 12-13 under 35 USC § 102(b) as being anticipated by Ghianai (U.S. Patent No. 6,293,334) or Jaimson et al. (U.S. Patent No. 6,311,768); rejected claims 1, 4, 6-7, 9 and 11 under 35 USC § 103(a) as being obvious over Vollhardt (U.S. Patent No. 3,433,298) in view of Gronnerud et al. (U.S. Patent No. 4,493,368); and rejected claims 2-3 and 5 under 35 USC § 103(a) as being obvious over Vollhardt ('298) in view of Gronnerud et al. ('368) as applied to claims 1, 4, 6-7, 9 and 11 and further in view of Ghiani ('334) or Jamison et al. ('768), and objected to claim 8 as being dependent upon a rejected claim but being allowable if written in independent form.

The Examiner is thanked for noting allowable subject matter. New claim 14 is presented with the recitals of allowable claim 8 and claim 1 from which it depends.

With this amendment claims 10, 12 and 13 are cancelled without prejudice to the subject matter contained therein. Independent claim 1 has been amended to further clarify the claimed invention. Support for the amendment may be found in Figures 9A, 9B, 10A, 12, 13 as well as the specification describing these figures. The claimed invention includes the part of the flat tube that is bent into an S-like shape in the minor axis direction between the heat exchange section and the header section. The S-like ends of the flat tubes are gathered together forming a flow path that is parallel to the flow through the heat exchanger, minimizing the heat loss.

None of the applied references disclose or suggest a heat exchanger where "parts of the at least some flat tubes are bent in S-like shape in the minor axis direction between the heat exchange section and the header" as recited in newly amended claim 1. As shown in

Figure 7, Vollhardt discloses a heat exchanger having a straight main 45 between the gas cap 15 and the gravity tube 22. The heat exchanger disclosed in Gronnerud discloses tubes 8 that are straight along its entire length. *See Fig. 1.* Ghiani discloses a straight tube end 6, connecting the flat tubes 5 in the heat exchanger with water containers 1 and 2. *See Fig. 1.* Jamison discloses a straight pipe for the inlet 30 and outlet 32 connecting the heat exchanger portion to a header. *See Fig. 1.* Thus, independent claim 1 and all claims dependent thereon are patentable over the applied references.

None of the applied references disclose or suggest a heat exchanger wherein the tube ends are “gathered and arranged substantially in parallel in a same direction of the heat exchange section at second intervals that are narrower than in the heat exchange section,” as recited in claim 1. Gronnerud discloses a heat exchanger wherein the ends of tubes 8 are spaced at the same interval as the heat exchanger section. *See Fig. 1.* Vollhardt discloses a heat exchanger wherein the tubes enter the distributors 6 and collectors 7 at the same interval as in the heat exchanger section. *See Fig. 1.* Jamison discloses one inlet 30 and one outlet 32 that are equal in length connecting the core 18 of the heat exchanger to an external cooling source. *See Fig. 1.* In Fig. 1, Ghiani discloses tubes 5 having end sections 9 that enter water containers 1,2 at the same interval as in the tube block 3. Thus, independent claim 1 and all claims dependent thereon are patentable over the applied references.

Reconsideration and withdrawal of the rejections under 35 USC §§ 102 and 103 are respectfully requested.

As all grounds of objection and rejection have been addressed and overcome, entry of this Amendment and issuance of a Notice of Allowance of the claims, as now presented, are respectfully solicited.

In the event that there are any questions relating to this Amendment or to the

application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 (120736-00103). In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not accompany this response, applicant hereby petitions under 37 C.F.R. 1.136(a) for an extension of time for as many months as are required to render this submission timely.

Any fees due are authorized above.

Respectfully submitted,

Takahide MAEZAWA

By: Michael D. White  
Michael D. White  
Reg. No. 32,795

BLANK ROME LLP  
THE WATERGATE  
600 NEW HAMPSHIRE AVENUE, NW  
WASHINGTON, DC 20037  
PHONE: (202) 772-5800  
FAX: (202) 572-8398  
CUSTOMER NO. 27557